

DUNE MANAGEMENT: HOUT BAY

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MOTIVATION FOR PROJECT

The Hout Bay beachfront extends from the base of Chapman's Peak Drive in the east to Hout Bay harbour in the west.

This 1.2km stretch of coastline is a popular recreational area and forms part of the Southern Peninsula scenic drive.

Natural coastal processes lead to sand being deposited on the beach and the beach thickening during the summer months. This sand used to be transported by the prevailing summer winds towards Sandy Bay.

This process still remains, but the sand can no longer move and is therefore trapped within the dune belt that now needs to be managed.

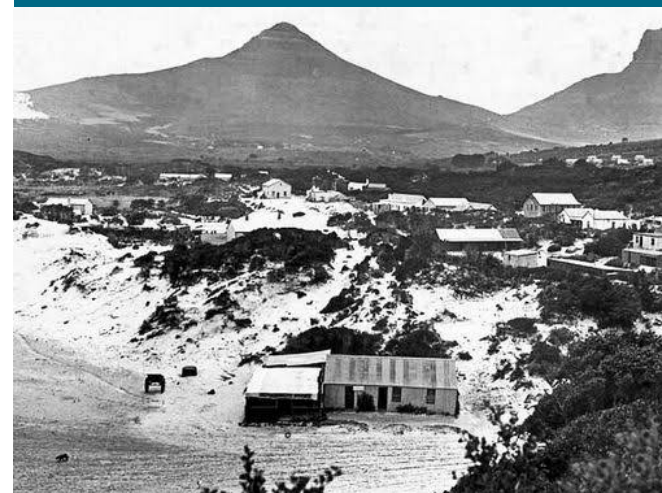
The dunes had become unstable with large unvegetated sand patches, which lead to an increase of wind-blown sand on surrounding infrastructure and a loss of biodiversity.

These remaining dune systems are important to protect surrounding infrastructure and buffer the coastline against storm surge events and sea level rise.

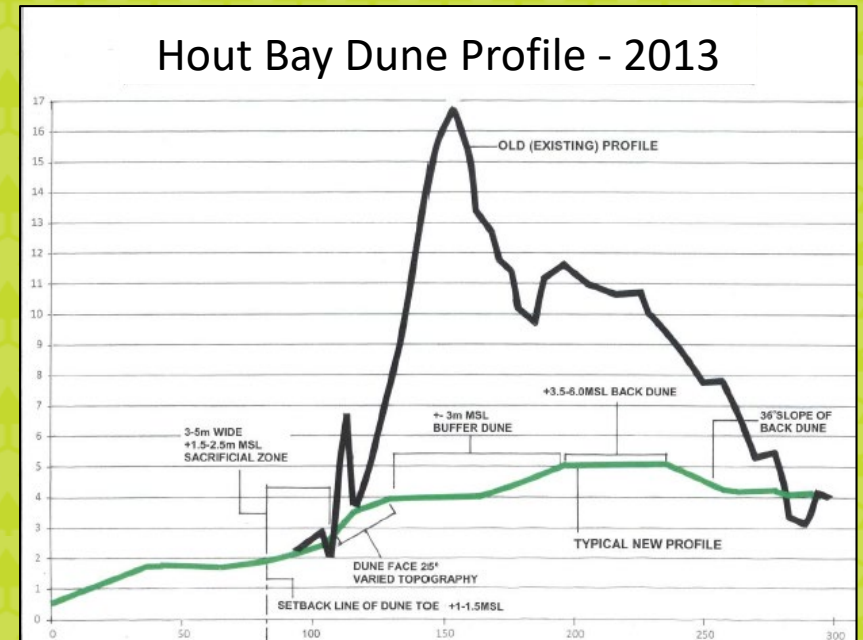
Coastal Management has taken the opportunity to include the Hout Bay dune system in its dune management plan, along with Fish Hoek, Kommetjie, Gordon's Bay and Table View.

HOUT BAY DUNE PROJECT

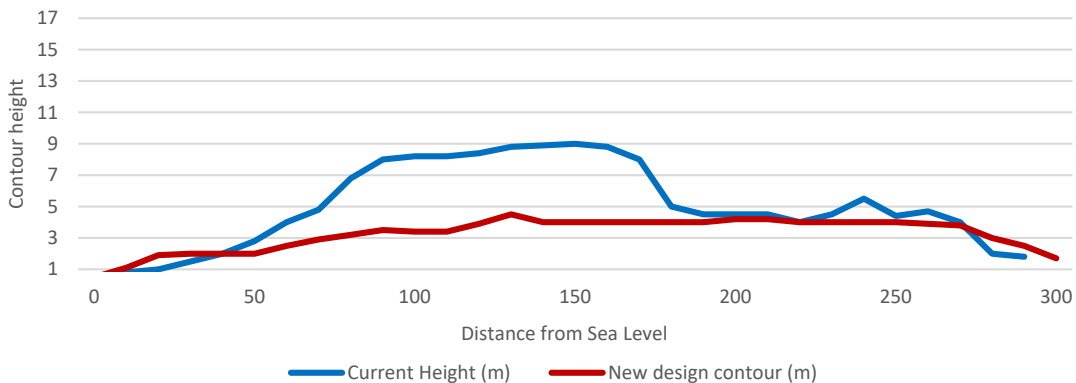
- Reprofile and vegetate the dunes to mitigate accumulation of windblown sand on adjacent infrastructure, including stabilisation and rehabilitation of the dune cordon.
- Install irrigation to encourage vegetation establishment.
- Install dune nets to facilitate the stabilisation, trapping and placement of windblown sand within the dune area.
- Restore coastal infrastructure - beach access, pathways and fencing.
- Increase biodiversity of coastal dune flora species.
- Project fully implemented by end of June 2021. After which, the City continued with maintenance.



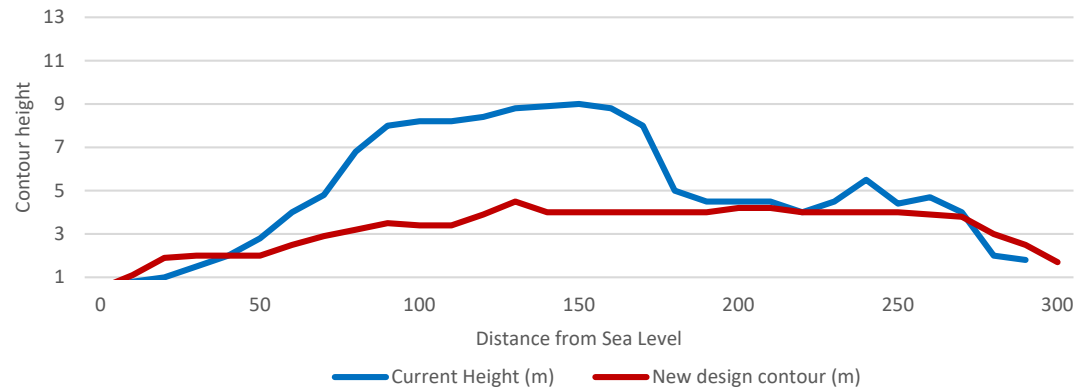
HOUT BAY BEACH BEFORE SAND MANAGEMENT..



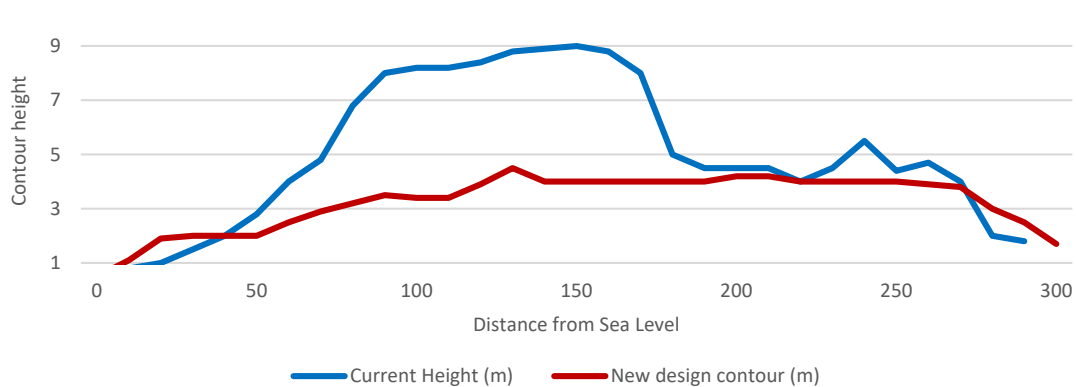
Profiles along F-F transect



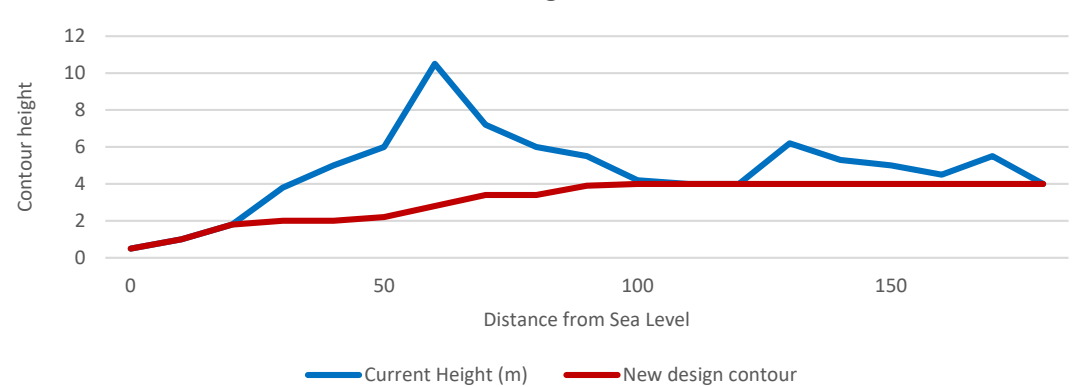
Profiles along G-G transect



Profiles along H-H transect



Profiles along I-I transect



OPERATIONS

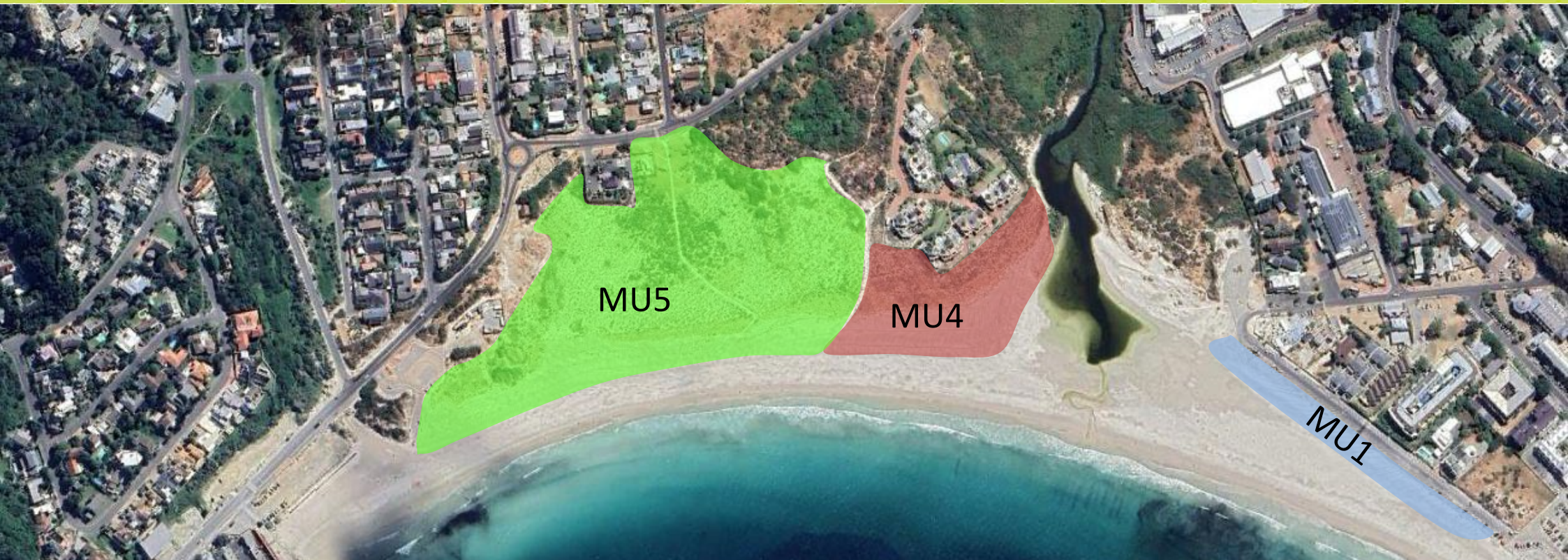
- During reprofiling of the dune system, organic material and other waste items that were uncovered from the earthworks, were collected daily and removed off site.
- A beach cleaning protocol was implemented to remove organic wash up from the beach.
- Ad hoc large scale clean-ups were undertaken and when required.
- Irrigation systems were installed on the frontal dunes to guarantee the establishment and long-term sustainability of the dune vegetation.

INFORMATION SHARING

- The works have been undertaken in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
- The project was advertised on the 21st and 22nd of August 2015 in two local community newspapers applicable to the project area, namely "The Peoples Post" and "The Sentinel".
- Project notification letters containing background info and a map were sent to directly adjacent businesses and landowners via registered mail, e-mail and flyers.
- Site Notices were placed at visible locations on site.

INTERESTING FACTS

- Approximately:
 - 7 ha of dune have been reshaped and rehabilitated with Indigenous Coastal vegetation.
 - 120 000 plants were planted within the dune system.
 - 10 km of wind nets were originally installed to manage wind-blown sand.
 - 2 well points and associated infrastructure were installed.
 - 10 local workers were trained in an NQF level 2 in Plant Propagation
- Plant species diversity and abundance increased due to variety planting of dune species.



SUCCESS TO DATE..



HOUT BAY BEACH AFTER SAND MANAGEMENT..

